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The.... Normal School of Arizona

Annual Catalogue 1901

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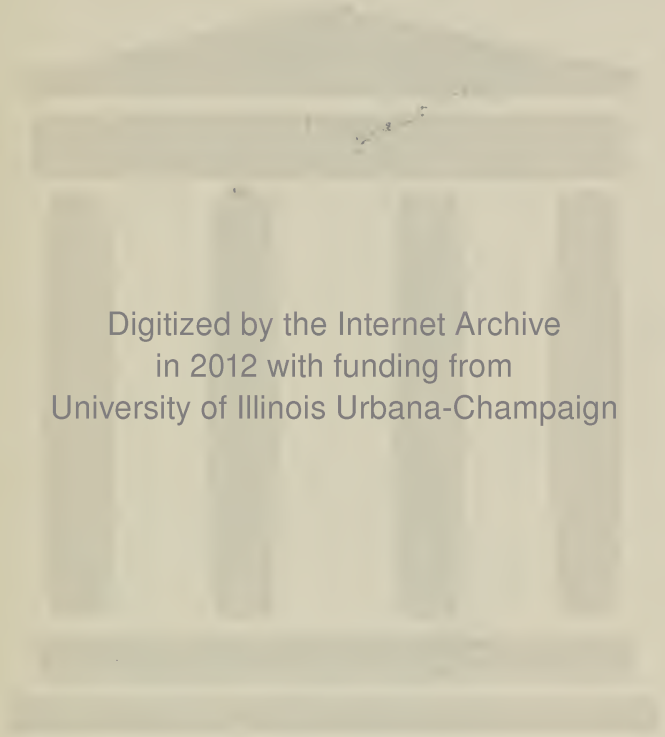

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MAIN BUILDING.

ANNUAL CATALOGUE

OF

The Normal School of Arizona

AT

TEMPE, ARIZONA

FOR THE

Scholastic Year 1900-1901

WITH

ANNOUNCEMENTS
FOR 1901 AND 1902

PHOENIX
PRESS OF THE ARIZONA REPUBLICAN
1901

CALENDAR FOR 1901-1902.

1901.

First Semester begins	September 3.
Entrance Examination and Classification	September 3, 4 and 5.
Registration Day	September 6.
First Quarter ends	November 8.
Second Quarter begins	November 11.
Thanksgiving Vacation	November 28, 29.
Holiday Vacation begins	December 21.

1902.

Holiday Vacation ends	December 27.
First Semester ends	January 24.
Second Semester begins	January 27.
Washington's Birthday	February 22.
Third Quarter ends	April 3, 4.
Fourth Quarter begins	April 7.
Memorial Day	May 30.
Anniversary and Commencement Exercises	June 8-13.

BOARD OF EDUCATION.

HON. R. L. LONG, Superintendent of Public Instruction,
PHOENIX.

MAJ. JAS. H. McCLINTOCK, Secretary,
PHOENIX.

COL. S. M. McCOWAN,
PHOENIX.

FACULTY 1901-1902.

A. J. MATTHEWS, Principal,
MATHEMATICS, CIVICS AND ECONOMICS.

FRED M. IRISH,
NATURAL SCIENCE AND MILITARY DRILL.

R. H. H. BLOME, Ph. D.,
PEDAGOGY AND PSYCHOLOGY.

ELISE REED AVERILL,
ENGLISH AND MUSIC.

W. J. ANDERSON, B. S.,
HISTORY AND MANUAL ARTS.

EUDORA MATHER, Principal of Training School,
METHODOLOGY.

JESSIE MARION SMITH, M. E.,
ELOCUTION, PHYSICAL CULTURE AND SUB-NORMAL WORK.

OFFICIAL BOARD OF VISITORS.

HARRY Z. ZUCK	Tempe
A. J. PETERS	Tempe
REV. E. A. PENICK	Phoenix

OFFICERS OF THE ALUMNI ASSOCIATION.

CHAS. WOOLF, President	Tempe
W. H. WILBUR, Vice-President	Tempe
UNA B. HANNA, Secretary	Tempe
MRS. ETTA B. JOHNSON, Treasurer	Tempe

AUDITORIUM.

The Normal School of Arizona,

Tempe.

GENERAL INFORMATION.

LOCATION.

The Normal School of Arizona owes its existence to an act of the Territorial Legislature, approved March 10, 1885. It is located at Tempe, a city of 1200 inhabitants, nine miles from Phoenix, the capital of the Territory. It has railroad connections with the Southern Pacific and the Santa Fe systems by the Maricopa and Phoenix and Salt River Valley R. R.

The climate during the whole school year is delightful. The school is located in the midst of an intelligent and moral community, engaged in farming and fruit raising. The buildings are of the latest design, provided with all the modern conveniences, well adapted to school purposes and pleasantly situated. Six church societies hold services in this city.

DESIGN.

The legislative enactment which established this Normal School (Chap. III, Par. 2515, Sec. 1, Code of Arizona) provides that instruction shall be given in the "art of teaching," and also "in all the various branches that pertain to a good common school education; also "in the fundamental laws of the United States and in what regards the rights and duties of citizens." An examination of the present course of study will show that the legislative intent has been carefully observed.

BUILDINGS.

Normal Building.—The new Normal School building was erected in 1894. It is a commodious structure, 136 feet long, 80 feet wide, and three stories high; the lower story is of brown sandstone, the other two of red pressed brick with sandstone trimmings. This edifice is beautiful in architectural design, convenient in arrangement, and substantial in construction.

Model School.—The building first used for school purposes was erected in 1886, is a one-story brick structure, 70 feet long and 60 feet wide, with a broad veranda entirely surrounding it, and a ten-foot hall extending through it from north to south. The building has been remodeled and completely furnished for a training school. It contains an assembly-room, teachers' office and four class-rooms. It is a perfect home as well as a model school for the pupils of the training department.

Dormitory.—Realizing the necessity of a dormitory for the accommodation of lady students of the Normal, the Twenty-first Legislature, by unanimous vote, approved by the Governor of the Territory, imposed a tax sufficient for the purpose, and as soon as it is available, which will be some time during the ensuing year, work will be begun on the new building and pushed as speedily as possible to completion. It is proposed to erect a substantial building, commodious enough to form a complete home for at least fifty lady students.

THE CAMPUS.

The normal grounds, which cover an area of twenty acres, have this year been newly laid out by an experienced landscape gardener, at an expense of nearly $2000. A fine system of graveled drives has been constructed, and bordered with grass plots and lined with trees and shrubbery, the latter having been selected with a double purpose in view—that of beautifying the premises and at the same time furnishing illustrative material for the work in botany. Many species of palms, cypresses and other plants foreign to this region have been planted, and a tract has been reserved for the typical plants of the desert, including the cacti, of which a large number have been obtained. The campus includes a parade ground for military drill, a basket-ball ground, and tennis courts, and plans are now under consideration for an athletic field, including a running track and a football ground. A space has been set aside for a garden, which is used in connection with the nature work in the training school.

DEPARTMENTS.

The school is organized in three divisions—the Normal, the Sub-Normal and the Training. The Sub-Normal course consists of one year, and only those are admitted to it who have done an amount of work equivalent to that taken in the first seven grades of the public schools. The Normal department consists of a four years' course, one-fourth of which is devoted to strictly professional instruction. The Training department is an adjunct to the Normal

proper, and is designed to give the members of the senior class actual practice in teaching.

ADMISSION.

1. The Sub-Normal.—No one will be admitted to the Sub-Normal department who has not completed the first seven grades of the territorial common school course. Students will find it to their advantage to have completed the eighth grade.

2. The Normal.—Candidates for admission to the Normal department will be required to pass an examination upon all the subjects in the Sub-Normal course. Certificates from an accredited school will be accepted in lieu of an examination.

3. Advanced Standing. Candidates for advanced standing in the Normal department must convince the faculty that their preparation for any particular subject has been sufficiently thorough to enable them to pursue it profitably. This preparation may be shown either by an examination, by class records in the Normal, or by the certificates of accredited schools.

4. Time of Admission.—Students will find it greatly to their advantage to enter the Normal at the beginning of each semester; but they will be admitted at any time, subject to the above restriction.

GRADUATION.

In order to receive a diploma a student must have attained the age of eighteen years, must have taken in this school all the subjects in the professional department, and also the following academic studies: arithmetic 3, algebra 5, advanced rhetoric, grammatical analysis, United States history 2, or science of government, and either physics or chemistry. Upon all the other subjects of the course the student must have passed a satisfactory examination, to be conducted by one of the faculty; provided, however, that the certificates of accredited schools may be accepted in lieu of an examination. If it shall appear from the records of examinations and daily recitations that the applicant shall have completed the course of study as heretofore set forth, and if no other qualification be lacking, such applicant shall receive a diploma which will entitle the holder to teach a primary or grammar school in any county of the Territory during life.

ACCREDITED SCHOOLS.

For the academic work of the course credit will be given to the certificates of other schools as follows:

1. University of Arizona at Tucson and Los Angeles Normal School, full credit for all the academic work. To this list others will probably be added in the near future. To the certificate of any regular chartered state or territorial school, and to any high school in any state or territory whose pupils are admitted to college upon presentation of their diplomas, credit will be given for all the subjects not mentioned under the heading "Graduation."

2. To the certificates of any high school in this Territory representing a four years' course of study, the same credit as in the preceding paragraph.

TUITION AND INCIDENTAL FEE.

The rates of tuition are as follows:

1. Those nominated by members of the Legislature are entitled to free tuition in both the sub-normal and normal courses.

2. Tuition is also free to students in the normal course who will sign a declaration of intention to teach in the public schools of Arizona after having completed the prescribed course of study in the Normal school. This obligation will have been considered to have been discharged when the length of time taught after graduation shall equal the number of months spent in the Normal. No student is classified in the normal course who has not received credit upon the records of this school for at least three and one-half semesters' work in the sub-normal course.

3. All students not classified as above are charged a tuition fee of twenty dollars, payable quarterly in advance. This includes the incidental fee.

4. All students entitled to free tuition as above are charged an annual incidental fee of $5.00.

APPOINTMENTS.

The right to nominate a pupil, biennially, is secured to each member of the House and Council of the Legislative Assembly of Arizona, preference to be given for the space of sixty days next after the qualification of said member, to pupils of the county from which said member is elected, after which time (no pupil acccepting) he may nominate a pupil from any other county of this Territory. No tuition is charged the pupils receiving the nomination, but each one pays an annual incidental fee of $5.00.

It is greatly desired that the members of the Legislature, respectively, appoint students to the Normal School, as authorized by law; and the County Superintendents and all others interested in supplying the schools of this Territory with well educated and

properly trained teachers should recommend to this school persons who desire to become teachers and who give promise of usefulness in that profession.

EXPENSES.

Board can be obtained in good families at from $15 to $20 per month; in clubs for much less. By hiring rooms and doing their own cooking, the expense of living can be still further reduced. It should be borne in mind in this connection that fruit, garden vegetables and other supplies are cheaper in this vicinity than in any other part of the Territory. Little fuel is needed. Rooms can be rented at a cost, per pupil, of from 25 to 50 cents per week, provided that two persons occupy one room. The cost of books and stationery ranges from $10 to $15 a year. Examination papers, pens and ink are furnished to the school free of cost.

SESSIONS OF SCHOOL.

The school year contains forty weeks, and usually begins the first Monday in September and ends the second Friday in June. The year is divided into quarters, and two quarters or twenty weeks constitute a semester, which is the period upon which the grades of the students are based.

The daily sessions begin at 9 A. M. and close at 4:15 P. M.; but students who complete their recitations at the close of the seventh period may be excused at 3:30 P. M. unless detained to do extra work.

EXAMINATIONS AND REPORTS.

Students shall attend all required examinations of the year. A standing of seventy-five per cent constitutes a passing grade, but this grade shall include class standing and examinations.

On the same basis, sixty-five to seventy-five per cent constitutes a conditional grade, and the student may be required to review the subject. A grade below sixty-five per cent is a failure, and the subject *must* be taken over again by the student.

The examinations shall be in writing, or partly written and partly oral, and shall be conducted by the instructor in charge. The examinations are held at irregular intervals, without notice to the students, and occupy only the recitation period.

Reports will be made at the end of each quarter to the parents and students, showing the standing in the subjects studied during the quarter. An average of the standing for two quarters shall constitute the standing for the semester, and becomes a part of the student's record on the books of the institution.

GOVERNMENT.

The government of the school involves three elements:

1. It is wrong not to do right.
2. The culture of a high sense of personal honor.
3. The highest style of government is self-government.

Students who will not govern themselves cannot hope, as teachers, to govern others. Each pupil is put upon his honor.

The endeavor of the Faculty is to enforce strict discipline in all departments of the school, the aim being to secure this by an appeal to the honor of the student; but in case of failure to secure the desired end in this way, the Faculty will not hesitate to enforce prompt obedience to all rules and regulations. Those who do not conform cheerfully to all requirements will be permitted to withdraw or be dismissed from the school.

REGULATIONS.

Absence from any required exercise must be accounted for before a student can be permitted to enter a succeeding recitation.

Students will not be permitted to take work outside of their regular classes, or any study outside of its regular order, without the permission of the principal.

Students will not be excused from military drill or physical culture without a certificate from a physician stating that such exercise would be injurious to the health of the student.

The young men of the Normal are expected to provide themselves with the cadet uniform as soon as possible after entering the institution. The expense of uniform is from $13 to $15.

Tuition and incidental fees are payable quarterly in advance.

Students will not be classified seniors who have to make up more than five hours' work per week in grades below the senior class, and in some cases, to be decided by the Faculty, a student may be required to complete all of the work below the senior year before classifying as a senior.

THE LIBRARY.

The school offers to students the advantages of a conveniently arranged and well lighted library and reading room on the first floor of the main building. The library already contains about 3000 carefully selected volumes, covering the fields of history, science, education and general literature. Among the additions during the current year are some 800 volumes of standard modern fiction. There is a generous supply of encyclopedias and other general reference works. The professional and historical depart-

ments are especially well equipped, making it possible to conduct work in those lines on the seminary plan. The reading room is fitted with serviceable tables, and is accessible during certain hours to all students. The tables are will supplied with the leading periodicals—literary, educational and scientific—and a card catalog greatly enhances the value of the library.

LECTURES.

In addition to lectures given by the faculty, a series of entertainments of high order, mostly lectures, is arranged each year. They have been a source of great profit and pleasure to the students.

This year, among others, we have had three excellent lectures delivered by Dr. H. B. Long, of Prescott, and during the week of Territorial Teachers' Association our students had the advantage of listening to excellent lectures, papers and discussions by the leading educators of the Territory.

Several good lectures will be provided for the ensuing year.

The frequent appearance of prominent people upon the rostrum at the opening exercises, most of whom favor the students with short, eloquent and instructive addresses, is a pleasant feature of the school.

LITERARY SOCIETIES.

There are in the Normal three well organized and well conducted literary societies—the Alpha, Olympian and Philomathean. Every student of the institution is a member of one of them.

The regular meetings of the societies are held Friday afternoon from 3:30 to 4:30, and programs are prepared for public entertainments from time to time during the year.

The regular meetings are conducted according to parliamentary usages, and are designed to acquaint their members with the customs and practices of deliberate bodies, to give an impetus to literary investigation and to develop a talent for literary work, public speaking, and extemporaneous speaking. The members of the faculty are honorary members of the society. Students who creditably perform their duties in this society are excused from a part of the regular exercises of the school.

THE MUSEUM.

The supply of illustrative material includes a collection of fossil forms, a collection of minerals and the beginning of a series of the native woods of Arizona. A working collection of marine forms has recently been obtained from the biological station at

Wood's Holl, Massachusetts. The collection of bird skins has this year been increased by a number of fine specimens, including many humming birds from Ecuador, the donation of Gen. Sampson, U. S. Consul at Quito. There is a rapidly growing herbarium of native plants for comparison and illustration.

Additions to the collections have been received during the past year from the following: Gen. Sampson, Quito; D. Fleming, Cave Creek; Thos. Hughes, Wickenburg; T. L. Schultz, Boone Lewis, J. W. Woolf, Wm. Woolf, A. M. Davis, Dr. Blome and C. H. Murphy, Tempe.

LABORATORIES.

The physical and chemical laboratory is equipped with suitable tables with water supply and waste pipes and lockers for individual apparatus. The outfit of chemicals, glassware and apparatus is ample for a large class, each student being provided with the necessary apparatus for the series of experiments. The stock of physical apparatus, beside that necessary for lecture experiments and class demonstration, includes a sufficient number of duplicate sets to enable an entire division to work simultaneously at the same exercise, by this means effecting a great saving of time in the laboratory practice.

The biological laboratory is furnished with tables to accommodate a large class, and is supplied with dissecting microscopes, glassware, dissecting instruments, etc. The stock of compound microscopes is yearly being increased, and there is an equipment of apparatus for the preparation of histological material.

ORATORICAL CONTESTS.

For the further encouragement of skill in extemporaneous speaking, an oratorical contest was held early in the year, and was participated in by both young men and women. Two medals were given, one to the most successful gentleman and the other to the most successful lady. These medals were made of gold, beautifully engraved, and were contributed by Broadway & Moeur and by the Arizona Mercantile Company. The former was won by Miss Elizabeth Hedgpeth and the latter by Harry Trussler.

The enterprising firm of Broadway & Moeur awarded a second medal near the close of the year for excellence in declamation. This medal was won by Miss Hattie Green.

The Broadway & Moeur medal will be awarded annually hereafter so the senior having the highest general average.

THE ALUMNI.

This Association now numbers 143 members. It holds two regular meetings each year and an annual banquet the day after commencement.

It is confidently believed that all graduates of this school will manifest a lively interest in its welfare. Their influence on the schools of the Territory is already plainly seen, and will doubtless increase. The Faculty desires to be informed of the success of the graduates, and also to render them professional assistance as far as possible.

It is the desire of the principal to know the permanent address of each one who has been graduated from the Normal School. Any change in residence or occupation, if made known, will be properly recorded. A mistake of any kind will be cheerfully corrected as soon as attention is called to it.

TEACHERS' BUREAU.

The Faculty do not wish to be understood as agreeing to furnish employment for their students upon graduation; but feel warranted in saying that they have many opportunities of recommending teachers to good positions, and they are pleased to do so, thereby rendering a service mutually helpful to their students and to school officers.

The principal of this school, when requested, will take pleasure in furnishing to school officers accurate information in regard to the fitness of students and alumni of this school to teach; also, when desired, will put them in communication with teachers seeking employment. In order to be able intelligently to recommend a teacher to a position, it is necessary that the principal be in possession of a full, detailed statement of the requirements of that position and of its surroundings.

CORRESPONDENCE.

All correspondence in regard to the management of the school, expense of living, conditions of admission, etc., and all applications for catalogs and announcements, should be addressed to the Principal of the Normal School of Arizona, Tempe, Arizona.

Those who contemplate attending a Normal School would do well to write us. Do not hesitate to ask questions concerning the school; we like to answer them. When you have decided to attend our school, let us know how you want to board, and whether you wish us to make arrangements. Let us know upon what train you will arrive, and we will meet you at the depot. If

you do not know upon what train you will come, and arrive in town between the hours of 8 A. M. and 4 P. M., come to the school building.

VISITORS.

Visitors are made welcome at all times. Teachers and educators are especially invited.

We are also pleased to see patrons of the school, and are glad to have visitors at our morning exercises, which commence at 9 o'clock. The school belongs to the Territory. Show your interest in it by paying it an occasional visit.

RATES ON RAILROADS.

Half rates are allowed by all of the railroads of the Territory to students on their way to and from the Normal, but in order to secure the rates students must apply to the principal of the school in time for him to make the necessary arrangements with the railroad companies.

MAIN ASSEMBLY ROOM.

Course of Study.

SUB-NORMAL.

SEMESTER B.		SEMESTER A.	
Arithmetic	5	Arithmetic	5
U. S. History	5	Civics	3
		Geography	5
Grammar and Composition	5	Grammar and Composition	5
Reading and Elocution	5	Reading and Elocution	5
Spelling and Word Analysis	2	Spelling and Word Analysis	2
Penmanship	2	Penmanship	2

FIRST YEAR.

SEMESTER B.		SEMESTER A.	
Algebra	5	Algebra	5
Bookkeeping and Commercial Law	5	General History	4
Grammar and Composition	5	Grammar and Composition	5
Elocution	1	Elocution	2
Word Analysis	2	Physical Geography and Geology	5
Zoology	5		
Drawing	2	Drawing	2

SECOND YEAR.

SEMESTER B.		SEMESTER A.	
Arithmetic	5	Algebra	5
General History	4	English History	5
Rhetoric and Composition	5	Rhetoric and Grammar	5
Physiology	5	Botany	5
Drawing	2	Drawing	2

JUNIOR YEAR.

SEMESTER B.		SEMESTER A.	
Algebra	5	Geometry	5
		Science of Government and Political Economy (Seminary)	3
U. S. History (Seminary)	3		
		English Literature and Masterpieces	5
Grammatical Analysis	5		
Psychology	5	Pedagogy	5
Chemistry	5	Physics	5
Drawing	2	Drawing	2

SENIOR YEAR.

SEMESTER B.		SEMESTER A.	
Geometry	5	School Law and School Economy	3
Practice Teaching (16 weeks).	5	Practice Teaching (16 weeks).	5
American Literature and Masterpieces	5	English Criticism	5
Methods		Methods	
Reading, Orthography, Grammar, History, Geography	5	Mathematics, Nature Lessons, Drawing and Penmanship	5
Advanced Psychology and Logic	5	History of Education and Ethics	5

Music, Physical Culture and Military Drill throughout the course. Figures indicate the number of recitations per week. A semester is 20 weeks.

Analysis of Courses of Study.

DEPARTMENT OF ENGLISH.

AIM.

The general aim in the instruction in English is to secure accuracy and facility in the expression of thought. It is of fundamental importance that those who are to teach others the correct use of English should themselves have acquired sufficient skill to enable them to set the example. And this skill applies not only to spoken language, but to written discourse as well. To be able to speak correctly one must be logical in his thought, skillful in his selection of words, correct in his pronunciation, grammatical in the construction of his sentences, and should possess a well trained voice. To be able to write correctly one must have in addition a thorough knowledge of the forms of words, of their derivation, of their idiomatic use, and of those niceties of expression which add force and beauty to his composition. It is recognized that even a reasonable degree of perfection in all these respects cannot be attained, except by constant drill, extending not over a single year, but over a series of years; and while each particular division of this subject may emphasize some one phase of the work, yet the general aim is not lost sight of in the methods employed at any point in the course.

READING.

Special attention is given to this work. In addition to teaching reading as the process of obtaining thought from the printed page, the course embraces the principles of elocution and class practice in their application. Constant attention is paid to the peculiarities and defects in pronunciation. In reading, very many selections from the works of leading American authors are studied. Intelligent oral expression is made an important factor of the work.

Selections from Longfellow, Bryant, Whittier, Holmes, Irving, Hawthorne, etc., are used. In order to become a good reader three things are necessary, viz:—a mental preparation, a knowledge of the mechanism of the printed page and an elocutionary training that will enable the reader to express the thoughts of the author when they have once been grasped. In the formal reading class of the first year in the Sub-Normal the first two of these objects

are made especially prominent. The instructor takes note of the pupil's stock of ideas, available in the study of the selection; adds such other and further information as may be found necessary; sees to it that the pupil can pronounce the words correctly; calls attention to the grammatical and rhetorical pauses; and, the ground being thus prepared, endeavors to secure a proper and an adequate expression to the thoughts of the author.

ELOCUTION.

As expression, or elocution, has to do with the whole man, so the work in this department aims at the development of both mind and body. Thoughts, emotions and purposes are expressed through a responsive voice and body.

In order to attain the greatest possibilities in expression, the mind must be enriched and strengthened in all its processes. This cannot be done by imitation.

The teacher must aid the student in grasping the thought from the printed page, and by means of word pictures and recalled experiences, arouse his imagination and enable him to reproduce in his own mind, while speaking, the thoughts and feelings portrayed by the author. This, with a will to make his audience see what he sees, will bring natural expression, without regard to mechanical emphasis.

Simple exercises are introduced in this department which tend to give freedom and ease to the speaker.

Special attention is given to placing the voice and to forming the syllables.

This, together with clear thinking and the expression of emotion, gives articulation and clearness to the voice. Elocutionary training includes: review of the elements of speech, with vocal culture; expression considered; agencies of delivery, voice and action; forms of voice, attributes of voice, quality, force, stress, pitch, time, etc., exercises in breathing; class drills in gesture, attitude and facial expression; sources of power in delivery; style of orators; methods of instruction.

SPELLING AND WORD ANALYSIS.

To be able to spell correctly those English words which are in common use is one of the marks of good scholarship. This ability, desirable in every case, is, however, an indispensable requisite on the part of a teacher. Doubtless much of the knowledge of the forms of words must be gained by that particular kind of memory training called visualization; still even this process can be greatly assisted by frequent written exercises, by the analy-

sis and synthesis of words and by the study of their meanings as revealed by their derivation and history. The amount of time assigned to class-room work in spelling and word analysis is sixty recitations; but it is not intended that any paper, even if but a written lesson, shall be accepted until all errors in spelling shall have been corrected.

Text book in use is Swinton's Word Analysis.

GRAMMAR.

The purpose of the work in grammar is to give the student a knowledge of the fundamental principles that make up the science of language, and to develop and cultivate in him the ability to apply those principles to the expression of original thought.

The work is pursued inductively, with the sentence as the basis. A thorough study is made of the sentence and of the nature and use of the various parts of speech. There is constant practice in oral and written discourse, with a special endeavor on the part of the teacher to increase the student's vocabulary and to stimulate his observation.

In the Junior year grammar as a science is differentiated from other and kindred language sciences. The sentence as the unit of the science, the parts of the unit, the combination of the units into different kinds of sentences, as determined by their form and meaning, and the logical interdependence of sentences will be carefully considered.

In the Junior year forty lessons will be devoted to the application of the principles of grammar to the various forms of English composition. It is expected that the student, from a careful study of authorities, will be able to reconcile statements apparently inharmonious; to construe idiomatic expressions; to discover the laws governing the participial and infinitive constructions; and to discuss the nature and application of the relative pronoun and the relative and conjunctive adverb. It is intended that this course in grammatical analysis shall form a thorough test of the student's knowledge of the science of grammar.

Text books—Whitney's Essentials of Grammar, Gayley's Classic Myths.

COMPOSITION.

The ability to read and write the English language with facility and accuracy is so important to the future teacher that its proper use, both in oral and written discourse, should at all times and everywhere be insisted upon. Accordingly written exercises, whether they come in the form of examination papers or as a

regular essay, are carefully criticised with reference to the use of English. It is the office of composition to present the principles and rules by which the different forms of discourse are constructed from sentences. In grammar, the sentence is the integral unit which is to be separated into its elements; in composition, the sentence is but a component element of discourse. In the one we seek to discover the rules by which we may test the correctness of construction; in the other we seek to use language correctly.

The work consists of a drill in conventional forms of letter-writing; exercises in proper use of words and phrases frequently misused; the study of selected poems, with the parallel study of poetic form and language. Special study of the paragraph and its development into the theme.

Topics for Discussion in Methods.—Language lessons—object of, time devoted to, kinds, material from nature, material from literature; lesson-giving plans for, preparation for; use of pictures, connection of language lessons with primary reading; proper form of written work, its illustration, method of securing it; object of composition; awakening and sustaining interest; correcting errors; text books, first use, manner of using; connection of composition with literature.

Text books—Waddy's Rhetoric, Scott and Denny's Paragraph, Palgrave's Golden Treasury.

RHETORIC.

Rhetoric is the science which treats of those principles that underlie connected discourse. It is both an art and a science. Considered as an art, its more elementary principles form the basis of composition; as a science, rhetoric seeks to classify and arrange the laws of discourse. The pupil is first assisted in finding a subject of thought, and is then shown how to accumulate, arrange and express the ideas connected with the theme. The learner is conducted, step by step, through the entire work of writing a composition, including the selection of a subject, the accumulation of materials, the arrangement of materials, the choice of words, the use of figures, the variation of expression, the preparation of the manuscript, the criticism of the complete production, and the classification of it as a specific form of composition. The point of view kept in this branch throughout is, that the study of rhetoric is the constructive study of literature, and the examples adduced at every point aim to show the usages of the best writers. To cultivate observation, ease of expression and regular habits of work, many themes will be given, advancing by easy steps and from simple description to exposition and the construction of argument.

Masterpieces of literature are studied and criticised with reference to style. In this way the student becomes acquainted with the principles of discourse in a connected form, and is furnished a standard of excellence whereby he may criticise his own efforts.

Topics for Discussion in Methods.—Relation of Rhetoric to grammar, to literature; object of study of rhetoric; development of principles and formation of rules; application of principles; selection of illustration; correction of errors in style; use of text books; supplementary work.

ENGLISH AND AMERICAN LITERATURE.

The aim of the instruction in this subject is to direct and assist the student to read with appreciation the masterpieces of the great authors and to guide him rationally and sympathetically into their thought and feeling. It is recognized that, in order to accomplish this, the environment of the author must be made familiar. This environment must include not only the personal incidents in the life of the author, but also the history of his times, and as a background, a good knowledge of world history and of the history of the English people. For this reason the study of English literature is placed after the historical work of the course.

In a similar way it is intended that the knowledge of the principles of grammar and rhetoric, gained earlier in the course, shall be applied to the study of selections taken from the works of the great authors. The application of these principles will not be allowed to usurp the art side of the study, to be pursued in accordance with literary methods; but their knowledge will form a rational basis upon which the pupil will found his judgments. A good text book will be used as a basis, to be supplemented by an examination of the works of the more important authors found in the library, after the seminary method. In all, 270 lessons are devoted to this subject, which includes the theme work of the senior year.

Topics for Study in Academic Work.—Beginnings of English literature; effects of Norman conquest; early modern English; renaissance influence; Italian influence; characteristics of Elizabethan age; Puritan influence; revival of poetry; chief characteristics of American literature; the study of classic selections.

Department of Mathematics.

Mathematics always has formed, and always must form, an essential element in every course of study. It will hardly be disputed that those qualities of mind which contribute to success in any occupation are the alertness which enables one to take advantage of opportunities as they present themselves, the accuracy which prevents falling into error, and that consecutiveness of thought which enables us to see clearly from the beginning the end to be obtained, as well as the individual steps which renders its attainment possible. But these qualities of mind are just the ones which mathematical processes, developed according to psychological laws, are best calculated to produce. It is our aim to so present each lesson in mathematics as to develop accuracy, rapidity and the power of logical analysis. While it is intended that the students shall be made familiar with all those topics in arithmetic, algebra and geometry usually taught in schools of this rank, nevertheless no more topics will be undertaken than can be thoroughly mastered. In all 900 recitations are devoted to this subject, 100 of which are in the Sub-Normal.

ARITHMETIC.

The knowledge to be gained from the study of arithmetic has been classified into knowledge for use, for discipline and as a foundation for future work. In the first year the aim is to ground the pupils thoroughly in principles of arithmetic as laid down in a good text book. The fundamental facts are reviewed and impressed upon the memory, clearness of statement, neatness and orderly arrangement in written work are insisted upon and logical demonstrations are always required. Fractions, percentage, measurements, both common and metric systems, interest and discount, especially valuable for their use, will be emphasized during the first year. Supplementary work will be sought for in the various text books and in original examples by the class. In the second year, after an elementary knowledge of algebra has been gained, the subject is again resumed, algebraic principles are applied in the solution of examples, and both accuracy and rapidity of thought are cultivated by frequent drills in Stoddard's Mental Arithmetic.

Topics for Discussion in Methods.—The child's first notion of number; the use of objects in teaching numbers, in the decimal system, and in developing the fundamental operations; relative relations of magnitude; the Grube method; analysis and synthesis; oral expressions of analysis; form and variety of written analysis; numbers for the first year; when text books shall be first

used; how text books should be used; when fractions should be introduced; when concrete exercises should be superseded by abstract; correlation with other subjects; educational value; to what extent drill for rapidity is profitable; the logical and pedagogical order of presentation for each topic; when and how definitions and rules should be taught; arrangement of topics in text books.

ALGEBRA.

Following a plan similar to that taken in arithmetic, algebra is begun in the first year, the elementary processes are learned and the equation is carefully studied to the end that it may become an instrument in the solution of examples in arithmetic. The distinction between an arithmetical and algebraical solution is pointed out, and a foundation is thus laid for a more extended study of both algebra and arithmetic. The algebra in the second and the Junior year is mainly valuable for the ability which it develops to follow a connected chain of reasoning, and this purpose is there made prominent.

Topics for Study in Academic Work.—Notations and definitions; fundamental operations; factoring; fractions; simple equations; simultaneous equations; negative results; involution; evolution; theory of exponents; radicals; quadratic equations; arithmetical series; geometrical series; proportion; maxima and minima; inequalities; indeterminate equations; logarithms.

Topics for Discussion in Methods.—Suitable illustrations of the significance and use of symbols of operation, of relations, of quantities, of axioms, apt illustrations of the meaning of the terms addition, subtraction, coefficient, exponent, and of all other technical terms used; geometric and graphic representation of the simpler expressions; concise and convenient forms for expressions and relations; transformations of equations; formations of equations; expression of formulas in oral language; interpretation of results; utility and power of algebraic investigations.

GEOMETRY.

The course in geometry includes both concrete and demonstrative, the former being taught in connection with drawing. Demonstrative geometry will embrace both plane and solid. Size-relations will be considered, first by immediate comparison of magnitudes, and afterwards by means of their numerical measure; abundant exercise in oral demonstration will be given, to secure elegance and conciseness of expression; and when this art of rigorous demonstration shall have been acquired the student will be required to devise his own solutions. In the second semester geometry is correlated with logic.

Topics for Study in Academic Work.—Logico-mathematical terms; geometrical concept; straight lines and angles; triangles, quadrilaterals; other polygons; circles, proportions; mensuration of plane figures; similar plane figures; original demonstrations of theorems; planes; solids with plane surfaces; solids with curved surfaces.

Topics for Discussion in Methods.—Basis and value of geometrical investigation; illustration of logical and mathematical terms; of geometrical concepts; formation of them; forms of deductive reasoning; stages in a demonstration; practical application of principles demonstrated; value of the scolium; demonstration by superposition, by reduction ad absurdum, by theory of limits, by method of exhaustion; history of geometry.

Bookkeeping and Commercial Law.

A course, consisting of 60 lessons, is given in bookkeeping, the object being to render familiar the method of keeping accounts both by single and double entry, especially the latter.

Each student is required to write out a set of blanks, in which he must show neatness and accuracy. Drill is given in rapid business calculations. Care is taken that students are made familiar with the meaning of common terms used in business life, and in addition that they acquire such knowledge of actual business as the circumstances of the case will allow.

In connection with the bookkeeping 40 lessons are given in commercial law. The method pursued is the combined text book and lecture, the former being used for definitions and frame work, while the latter consists largely of the application of the principles set forth in the text book to actual business experience.

Topics for Study in Academic Work.—Bookkeeping: Abbreviations; signs; classification of accounts; double entry; day book; journal; posting; closing ledger; commercial forms; bill books; invoice book; shipments; account sales; partnership; farm accounts; balance sheet.

Commercial Law: Principal and agent; contracts; effect of statute frauds on contracts; partnership; sales; guaranty and endorsements; commercial paper; warranty; insurance; real property; transfers of real property; title by gift, devise and descent; wills.

1. CHEMICAL LABORATORY. 2. BIOLOGICAL LABORATORY. 3. GEOGRAPHY ROOM.

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Department of Natural Science.

The aim of the work in this department is not so much the collection of a large store of facts as the thorough training of the student in systematic methods of scientific study and the inculcation of habits of close and accurate observation, orderly thought and logical expression. The student is required to obtain a working knowledge of the fundamental principles of the sciences, and is led to recognize their practical application. The laboratory courses offered both in the physical and natural sciences afford abundant opportunity for acquiring facility in the manipulation of apparatus and in the handling of material. The instruction is chiefly academic, its application to nature work in the elementary schools being reserved for the practice department, where each subject receives special attention. However, in selecting the exercises and in conducting the recitations, the attention of the future teacher is frequently directed to the availability in his chosen calling of the knowledge he is here acquiring. The laboratories for work in physics, chemistry and biology are commodious, well lighted and suitably equipped with apparatus of the latest design, new pieces being added from time to time as new discoveries in the scientific world and the progress of methods demand. There is a large and growing collection of material for illustration in biology and geology, which during the last year has been increased by many specimens, contributed by individuals. Such contributions are always acceptable, as by this means it is often possible to obtain valuable and useful material for illustration and study.*

BOTANY.

The study of botany is peculiarly adapted to cultivate the powers of observation, and to arouse an interest in, and a love for, the beauties of nature. For this reason a knowledge of plant life is especially valuable to the teacher, as furnishing a basis for attractive and interesting courses of nature study for all grades of the elementary schools. The underlying principles of vegetable anatomy and physiology are dealt with in as thorough a manner as practicable, but the fact is recognized that the life relations of plants are of more interest and importance to mankind in general. The student is, therefore, not allowed to restrict his horizon to the

* The value of specimens of all kinds is greatly enhanced by attaching to them a label, bearing the date of collection, locality, name of donor, remarks as to scarcity, abundance, utility, etc.

limits of the vegetable cell, but is led to study the relation of the plant to the conditions under which it lives, and to the effects of soil, climate and other factors of environment upon its form, structure and habits.

The work begins in the spring, with a laboratory study of the conditions affecting the germination and growth of the seed, followed by an investigation of the morphology, structure and functions of root, stem, leaf and flower. The subject of plant relations, to which the attention has heretofore frequently been called, is now treated more fully, and the course closes with a study of typical plants illustrating the leading types of vegetable life, thus giving the student an introduction to systematic botany. The entire course is illustrated by experiments performed by the individual student in the laboratory and by field trips at frequent intervals. Each student is required to keep a neat and systematic record of all his observations and investigations, and to illustrate the same by careful drawings and sketches. The laboratory is well supplied with dissecting microscopes and apparatus for the preparation and study of such material as is required in the course, and the student is constantly referred to standard works in the library.

The varied and interesting flora of the Salt River valley, and of the surrounding mountains, is amply sufficient to furnish abundant material and to arouse a desire for original research.

Topics for Discussion in Methods.—Purpose of and plans for nature study; value of plant lessons—(a) formative value, (b) content value; awakening and sustaining interest; cultivating powers of observation; obtaining suitable material; graded lessons for common schools; time to be allotted to study of plant life; work for different seasons and localities; introduction and use of technical terms; cultivation of æsthetic taste; appreciation of harmony of color and form; procedure, value and limitation of representation by modeling and painting; use of text book.

ZOOLOGY.

This course consists of a laboratory study of types of the more important groups, supplemented by discussions of fundamental principles. Here, as in the botany work, the powers of observation are strengthened and habits of careful, systematic thought are developed. The student is required to do a large amount of study out of doors, field trips by the class as a whole, or in groups, being an important feature. The student keeps a careful record of his laboratory work and of the supplementary lectures, illustrating his notes by drawing. The life relations of animals, as well as their structure and physiology, are studied, and attention is called to

progressive development of types leading up to the theories of organic evolution.

Topics for Discussion in Methods.—Devices for collecting and preserving insects, rearing larvæ, etc.; making and maintaining aquaria; relation of zoology to number work; relation of animals to man; useful animals; destructive animals; cruelty to animals; protection of animals against wanton destruction; graded nature lessons for elementary schools; work for different seasons; kind and amount of direction by teacher; use of text books; reference books; collections of illustrative material.

PHYSIOLOGY.

The general ideas of life processes which the student has acquired in the course in zoology are here worked out in detail in their application to human physiology. The subject of anatomy is made subordinate to a clear understanding of physiology and hygiene. The entire course is illustrated by class experiments and by dissections performed upon small animals. The compound microscope and the solar projection microscope are used in demonstrating the minute details of structure, an excellent series of histological slides being available for this purpose.

Topics for Discussion in Methods.—Methods of observing the form and structure of organs; illustration of functions; dissection of small animals; procuring illustrative material; use of blackboard drawings; use and manufacture of charts; use of skeleton, manikin, casts and models; reference books; laboratory work; apparatus for experimental demonstrations.

PHYSICAL GEOGRAPHY.

This course presupposes a thorough knowledge of elementary geography in all its aspects. The scope of the work includes a consideration of the earth's place in the universe, and a brief discussion of its form, size, motion, and of its relation to the other members of the solar system. The earth is considered as being surrounded by two great envelopes, the atmosphere and the ocean. The atmosphere is first discussed, and in this connection the students are required to make and record daily observations of the condition of the weather, the height of the barometer (reduced to sea level), the temperature, dew point and relative humidity. From these records curves are constructed showing graphically the conditions which prevail from month to month during the course. The observations made by the students are compared with the daily bulletins furnished by the government weather service, thus impressing upon the mind an idea of the practical

nature of the work. The subject of storms is illustrated by a carefully selected series of weather maps, placed in the hands of the student for study. Climatology is given a prominent place in its bearing on the geographical distribution of animals and plants. The study of the land is taken up as a half-term course in dynamical and structural geology, enough time being devoted to historical geology to enable the students to become familiar with the leading principles of the development of life upon the earth, and to understand something of the methods of geological research.

Topics for Discussion in Methods.—Development of ideas of place, position, distance and direction; ideas and physical features of home location, occupation of people, product of locality, representation by maps of school districts, precinct, county, territory; how to proceed from home geography of state; value of vivid description and graphic representation; appeals to the imagination; presentation of the study of the earth as a whole; subdivision of the earth's surface; use of text book—time of, extent of, manner of; map drawing—place of, value of, manner of conducting; exhibition of products—natural, artificial; construction and use of simple apparatus; value of experiment; sand and clay models; use of maps, charts; graphic method of illustration as applied to comparative areas, wealth, industries, production, temperature, rainfall; explanation of phenomena—day and night, change of seasons, weather; collection and use of specimens; kind and amount of additional reading; supplementary material; outlines; field observation; excursions; original notes on geology, geography and familiar weather phenomena.

PHYSICS.

The aim of the work in physics is two-fold—first, to give the student a knowledge of the theory of the constitution of matter and of the physical laws governing its phenomena, and second, to acquaint him with the use of experimental methods in scientific study and investigation. The laboratory method is used, the student being required to perform a series of selected experiments, both qualitative and quantitative. The experiments used are largely chosen from the Harvard preparatory course. An improved method of note-taking is used, the notes being written up at first hand directly from the experimental work, upon separate sheets of paper which, after examination by the instructor, are bound into a cover for preservation and reference. The student is taught to control the inevitable errors of measurement and to understand the value of a mean of a series of observations. He also learns to plot his results in graphic form by means of curves. Loss of time is prevented by providing each individual student

with a complete set of the instruments and pieces of apparatus most frequently used. The field of view is broadened by constant reference to standard works by different authors in the library. The course is amplified by frequent quizzes upon the laboratory work, and by lectures upon the underlying laws and principles.

Topics for Discussion in Methods.—Preparation, presentation of, and time devoted to nature-study lessons for the grades of common schools; illustrations of the principles of the simple laws of physical science; simple devices for illustration; aid and direction from teacher, kind of, amount of; text-book, when and how used; note book; use of representation, by drawing, by formula.

CHEMISTRY.

The course in chemistry is intended to precede immediately that in physics. The student thus begins the latter study with a knowledge of the atomic theory, and the chemical constitution of matter, and has already acquired considerable facility in the handling of apparatus. The course consists of laboratory work, supplemented by lectures and recitations. The method of note-taking is similar to that used in the course in physics. The laboratory is provided with work tables of approved design, and the equipment, both apparatus and chemicals, is excellent.

Topics for Discussion in Methods.—Amount and kind of direction by teacher in experimentation; preparation and use of simple appliances for illustration and investigation; selection of matter suitable to nature-study lessons in the grades of the common schools; use of text-book; use of note book; value and use of representation, by drawing, by symbols, by equations.

Department of History, Civics and Economics.

As one of the avowed purposes for which this Normal School was founded was to give instruction "in the fundamental laws of the United States, and in what regards the rights and duties of citizens," it follows that the study of history, and of civics, its cognate subject, must be given an important place in the course. Nor could the legislative intent be properly carried out by confining the attention to the history and government of the United States. Our laws and our institutions are not alone the creations of a people native to this continent; but their origin must be sought in the records of nations who flourished and passed away before this country was known to our ancestors. All good citizenship must rest upon knowledge, and especially upon an acquaintance with those causes which have led to national prosperity or decay.

Believing, then, that an appreciative knowledge of the history of our own country must have for a background a good knowledge of world-history, the courses in this department have been so arranged as to lead up to a careful study of United States history in the Junior year. In the earlier part of the course it is sought to impress the leading facts of history upon the memory, and to make them vivid by the use of the imagination. As the subject progresses, however, the disciplinary side is emphasized, and finds its culmination in the seminary work, which is pursued by the pupil in the library, under the direction and the advice of the instructor. A total of 420 recitations are devoted to history, and 120 to civics and civil government.

UNITED STATES HISTORY.

The course in United States history is divided into two parts, one of which comes in the sub-normal year, and the other in the Junior year. The object in the first is to make the pupil acquainted with those leading facts of our national history which every intelligent citizen should know. The text-book is made the basis of the instruction, but it is supplemented by the reading of biographical and other works connected with the events studied.

After an interval of two years, when the mind of the student has become more mature, and the horizon widened by the study of other nations, this subject is again taken up for one semester. A rapid review of modern history is given, and topics are then assigned to be developed by the student. Each one of these topics is given to a particular student but the whole class is held respons-

ible for such an acquaintance with each as may be had from the reading of the references to be had in the library. When the day arrives for the presentation of any particular topic the student having it especially in charge will conduct the recitation.

Topics for Study in Academic Work.—Religious persecution as an element in the settlement of America; influence of America upon the nations of Europe; the employment of Indians in warfare; the aristocratic element in the settlement of America; the influences of the middle classes upon American life; the American revolution but one step in the development of constitutional liberty; the influence of the French element upon the American institutions; the effect of the slavery agitation upon our national character; political ideals as modified by the spoils system; the Monroe doctrine and territorial expansion; English and American parties; the public domain; England's attitude towards America in the crisis of her history; the proper exercise of the power of taxation essential to national prosperity.

GENERAL HISTORY.

In the elementary course in United States history the facts learned are chiefly valuable for guidance; but hereafter the instruction is increasingly devoted to the disciplinary side. Facts are to be learned, but more attention is paid to their proper connection and the importance is tested by the consequences which flowed from them. The aim is to lead the pupil to discover the facts and to trace the consequences. This course in general history is pursued during two semesters. In the first, 60 lessons are devoted to the ancient monarchies and Greece; in the second, 100 lessons are given to Roman, mediæval, and modern history. There are frequent references to the library, which are intended to supplement the work in text-books.

During the second semester of the second year 100 lessons are given to the study of English History so as to secure a better foundation for the further study and understanding of United States history (seminary) in the Junior year.

Topics for Study in Academic Work.—Ancient History in Greece: Aids to history; origin of nations; the world as known to the ancients; the seven ancient monarchies; the Hebrews; the Phœnicians; Greece—its geography, its people, their religion, heroic age, early growth of Sparta and Athens; the battle of Marathon; battle of Syracuse; Peloponnesian wars; the conquest of Alexander; battle of Arbela; Grecian art and architecture; education, social life, and civil institutions.

Roman History: Early Roman history; development from a kingdom to a republic; from republic to empire; decline and

fall; the campaigns of Hannibal; the battle of the Metaurus; campaigns of Cæsar; the administrations of Augustus; Constantine; the Eastern and Western empires; the battle of Chalons; the civil institutions, social life, laws and literature.

Mediæval History: Migration of the Teutonic tribes; origin and spread of christianity; rise of the papacy influence of the church during the middle ages; Justinian; conquest of the Saracens; triumph of Christianity over Mohammedanism at the battle of Tours; Charlemagne; feudalism; Norman conquest of England: crusades; growth of towns; city republics; development of modern civil institutions.

Modern History: Reformation under Luther; the English reformation; Charles V. and the Spanish inquisition; France under Louis XIV.; religious persecutions—their influence upon continental and American history; development of civil liberty in England; rise of Russia, of Prussia; French revolution; Napoleon; the struggle for liberty in Italy; the German empire; present state of European nations.

Topics for Discussion and Methods.—Correlation of history and geography, of history and literature; selection of matter suited to the several grades of common school work; methods of presentation; fairy tales, bible stories, stories of adventure, biographies; use of text-book; historical novels and poems; the influence of climate and physical features; advantages of following chronological order; criticism of text-books; educational value of historical study; history as a foundation of patriotism; use of historical cards, charts, maps, pictures and topical outlines.

CIVICS.

In the first year of the Sub-Normal course, civics is pursued for one semester, three times each week. The object here is threefold—to make the student acquainted with the elementary principles of law necessary for his protection in the enjoyment of his absolute rights; to render him familiar with the means adopted by society to preserve order, and to redress civil wrongs in his locality; and to lay a foundation for the study in detail of the essential features of our state and national government. Elementary law is taught from the text-book, and illustrated, as far as possible, by examples taken from the experiences or observations of the pupils. The frame work of local government is taught by witnessing the trials in justice's court, by mock trials, by visits to the polls on election days, by attending the sessions of the common council and by comparing the results of these observations with the directions given in the revised statutes of Arizona. After a study of local conditions, the horizon is broadened to include those features

of the state and national government which correspond to the local institutions.

Topics for Study in Academic Work. — Principles and definitions; absolute rights; citizenship; the home; the school; from infancy to manhood; the congressional township; the civil township; the machinery of the civil township; political machinery; how to vote; private property, real and personal; protection of person and property; the township court; a civil case in justice's court; formative influences; villages and cities; the county; county elections; county officers; the state government; national government.

CIVIL GOVERNMENT.

After the completion of the courses in history, the study of our government is resumed. An elementary knowledge of the subject will be assumed, and the attention will now be directed to the study of the national constitution, to the relation which the nation bears to the state and to the territories, and vice versa. The method will be by lectures, supplemented by individual work in the library, the efficiency of which will be tested by special reports from the individual students, and by quizzes in the class.

Topics for Study and Academic Work.—Inter-Colonial Relations: Revolutionary war, causes and consequences; weakness of the confederation; colonial charters; early state constitutions; the critical period; the constitutional convention; effect of its adoption; express grants and reservation of power by the states; implied power; state sovereignty; organization of the three branches of government; the electoral system; acquisition and government of new territory; political party.

Topics for Discussion in Methods.— Correlation with history; method of study by observation; use of text-books; criticism of text-books; the synthetic method; political machinery; value for cultivating patriotism; organization of child's fund of knowledge; value of illustrative trials and elections by the class; method of conducting each; how the study contributes to good citizenship; comparison of our own with other forms of government.

ECONOMICS.

A short course in economics is given in connection with the course in Civil Government.

The purpose of the course is to prepare young teachers to understand the great current laws of industrial social life, and to be able to instruct the youth in the common schools in the correct

principles of thought and action in regard to the social and industrial questions and business opportunities.

Economics treats of man in all phases and conditions of society. The principal topics for discussion are: Production, exchange, distribution, consumption, taxation, interest, capital, laws of rent, division of labor, monopolies, corporations, co-operation, etc.

Department of the Manual Arts.

Training in the manual arts in this school is limited, at present, to a study of penmanship, drawing, clay modeling, and some constructive paper and cardboard work—all indispensible forms of expression in the lower school. These subjects are closely allied, skill in each branch involving an automatic control of hand, eye and brain in harmonious action; therefore exercises leading to this end in one branch will constitute valuable preparation for all the work which is to follow.

The general aims of this department may be summarized as follows: To make the hand spontaneously obedient to the mind through the education and co-ordination of the motor centres of the hand; to train the perceptive faculties; to develop organic skill in the delineation of simple objects and original or historical designs in several mediums, such as chalk, pencil, charcoal, inks and clay; to cultivate artistic taste and feeling; to develop ambidexterity; to secure a clear, rapid and individual hand writing; and to give an insight into the pedagogical value of all forms of manual training, especially drawing.

PENMANSHIP.

This subject is taught during the Sub-Normal year. Thorough drill is given in movement exercises. At first these movements are made large and then gradually decreased in size. When the muscles have become accustomed to act smoothly and freely the same motion is carried to the formation of the letters. Considerable time is devoted to practice at the black-board. It is expected that each student will have acquired a good, free, vertical handwriting by the close of this year.

DRAWING.

The first 40 lessons of the first year of the Normal Department are devoted to large movements of both the right and the left

MUSIC ROOM.

DRAWING ROOM.

hand and arm, the hands working sometimes together, sometimes alone. They involve many combinations of the circle and other geometric forms, as well as some of the usual drill exercises for writing. The time is divided between work at the board and at the desk, the aim being to develop boldness and rapidity of movement, muscular control, ambidexterity, accurate perceptive judgment, and an ability to co-ordinate movements skillfully.

A portion of the time is given to the drawing of objects; to the study and practical application of the elements of design; and to construction.

The forty lessons of the second semester are given to constructive problems, including perspective; to grouping of objects; nature work; designing in ink; and to black-board drawing.

The first 40 lessons of the second year is a continuation of the previous course, together with a study of light and shade; of color; and the making of working drawings of geometric solids (including the principal type forms) and simple objects, and to their construction, from the drawings, in paper or card board. This work necessarily includes a study of the geometrical facts and principles involved in the form constructed, which makes it a valuable preliminary to the study of geometry in the Junior year. The second semester is given to designing, lettering, and to a study of historic ornament. An effort is made to make this work thoroughly practical. All designs are prepared for specific use, such as wall paper, oil cloth, fabrics, panels, carving designs for articles of furniture, etc., and are finished as nearly as possible in the form adopted by the practical designer.

In the Junior year the 80 lessons are devoted to free hand drawing and modeling. An effort is made to develop in the students a love for the beautiful in art and nature, through a study of artistic objects, casts and pictures; as well as to give skill in the delineation of simple subjects, including natural forms. In this year the pencil, charcoal, pen-and-ink and color are used as mediums.

In the Senior year 40 lessons are given to the study of the value of drawing as a mode of expression in childhood, and as a means of educating the mind. Children's drawings are collected, studied and classified, and the conclusions drawn from such study compared with those put forth in the best literature on the subject. A comparative study of the best drawing and manual training systems and courses of study is also made, with a view to determining the best methods of teaching the manual arts, and for employing them as a means of expression in the various lines of school work.

MUSIC.

If an argument were needed for the teachers of music, it would be that it brightens the life, refines the taste, cultivates the imagination, strengthens the memory and confers upon the child the power of giving pleasure to himself and to others.

The influence of music upon the unfolding life of the world has been as marked as that of any other force, and to be unlearned in its history and its meaning is to be, in a sense, an ignorant person. In no other department of knowledge is it customary to speak complacently of one's ignorance. To have what is called "no ear for music" is no special disqualification for the duty of being acquainted with its rudiments, its history, and its application, any more than a distaste for mathematics excuses one from acquiring the multiplication table.

It should be true of a graduate from a normal school that his knowledge of music should be, at least, as general as his knowledge of mathematics; that he should know the history, theory and relation of music to other sciences, and above all, the rudiments of voice culture which he has received should be of such a character, that if his talent warranted a further cultivation, he should not feel that the work he had done was a detriment to his future progress.

All work in music should begin, the earlier the better, with singing, the rational practice of which involves the application of principles, and more important still, the formation of habits that lie alike at the root of musical science and skill.

Our course is based upon the objective method of teaching now applied to the study of all elementary branches. The aim of the work is to give such a knowledge of fundamentals in music that the student shall be able to analyze and interpret at sight musical selections and acquire an appreciation of what is best in musical literature.

Students are classified according to their musical knowledge and ability. The course is divided into two grades and covers a period of four years.

Grade I: Voice production, exercises in breathing, staff nomenclature, interval and rhythm, development of the major scale.

Grade II: Continued development of the major scales through all keys, minor mode and chromatics, chart drill, study of composers and musical form.

Methods.—Children's voices; expression; rote singing; cultivation of the sense of rhythm; elements of conducting.

One hour a week throughout the year is devoted to chorus drill and part singing.

Text book—Popular Method of Sight-Singing, by Frank Damrosch.

Military Drill.

By the placing of military drill in the school course, several important objects are gained. In the first place, it is a valuable means of physical culture and training of the muscular sense. The exercise attendant upon a lively drill in the open air is of a nature well calculated to overcome the effects of close application to study, to promote a healthy circulation and to prepare the mind for more vigorous effort. Again, daily attention, even for short periods, to correct position in standing and walking gives a springy step, an erect carriage and a soldierly bearing that can scarcely be attained by any other means. Moreover, the strict discipline which is inseparable from properly conducted military work is eminently conducive to the acquiring of orderly and systematic habits, personal neatness, prompt response to direction, and self-control. At the same time, the gradation of authority and division of responsibility from private to captain, furnish a valuable object lesson in government, while the actual military knowledge gained makes the student a more valuable citizen, preparing him, as it does, the better to take upon himself the work of his country's defense in time of need. The objection which has sometimes been opposed to military drill because of its one-sided character is entirely met and overcome by the use of the setting-up exercises, the bayonet drill and the calisthenic exercises with and without the piece; while the attractive nature of the work gives to it that spontaneous character without which exercise is valueless.

The course which is required of all male students who are free from physical disability, includes the "setting-up exercises" as prescribed for the United States army, the school of the soldier, the school of the company, the bayonet exercises, calisthenic and bar-bell exercises, extended order work and battle formation for the company acting alone, the ceremonies of parade and guard mounting and the duties of sentinels. The principles of battalion movements are explained and outlined in order to illustrate the relation of the company to larger bodies of troops.

By an Act of the Twenty-First Legislative Assembly of the Territory of Arizona the military organization of the Normal School of Arizona is made a part of the National Guard of this Territory, to be known as the Normal School Cadet Company. The military instructor holds the rank of Captain, and commissions are issued to the student officers of the company. Upon graduating from the institution, or being honorably dismissed therefrom, such officers may resign their commissions or hold the same as retired officers of the Cadets, liable to be called into ser-

vice by the Commander-in-Chief in case of war, invasion, insurrection or rebellion.

Under this law the requisite ammunition and accessories for a course in target practice will be furnished to the institution each year.

The drill is conducted in strict accordance with the regulations of the United States army, and the company is annually inspected by the officers of the National Guard.

The uniform which is required to be worn at all drills, is of cadet grey, neat in style, serviceable and comfortable. Directions for ordering the uniform will be furnished to prospective students upon application to the president.

Drills will occur four times per week during the year.

ATHLETICS.

Interest in athletic work is encouraged among the students and dressing rooms and baths are provided for members of the teams while training. The success of the work in this line is indicated by the championship cup of the territorial foot ball league which has become the property of the Normal eleven.

Department of Physical Training.

While the primary object of a school of this kind is the training of the mind, we must recognize the fact that it is impossible to obtain satisfactory mental work if the physical condition of the student is neglected. The maxim "A sound mind in a sound body" should carry the same force today that it did with the ancient Greeks. Students away from home and occupied with their studies are prone to neglect the matter of muscular exercise. For this reason, if for no other, some form of physical drill is a necessary adjunct to a normal school course. The ordinary track athletics and field games furnish an excellent means of muscular development, and these are encouraged among the students in so far as they do not conflict with the school work. However, the fact remains that such exercises can be of benefit to comparatively few of the students and those for the most part of the male sex. In order, therefore, that every member of the student body, regardless of sex, may have opportunity for physical drill of the proper amount and kind, there have been provided a course in physical culture work for the young women and military drill for the young men. The work in each course is outlined below.

GRADUATING CLASS, 1901.

NORMAL FOOT BALL TEAM—TERRITORIAL CHAMPIONS.

NORMAL CADETS—TERRITORIAL CHAMPIONS.

PHYSICAL TRAINING.

The work in physical training is recognized as an important branch of the school work, and all girls are required to take the course.

The object of the work is to preserve the health of the students; to train correct habits of muscular action; to develop the body; to discriminate between useful, effective exercises and harmful, injudicious ones; and to prepare students to supervise and to connect the physical with the mental side of the education of their classes.

The series of exercises prescribed for the young ladies of the school consists of a system of free gymnastics, that is, of movements performed without apparatus. The course comprises six sets of movements, about one hundred in all. These are arranged on the same general plan in each set, the first being intended to give control of the muscles used in standing and to give the power of maintaining perfect immobility of body without rigidity. Then follow movements specially designed to develop certain muscles, beginning with those of the feet and ankles and taking in order those of the limbs, trunk, shoulders, neck and arms. These movements are graduated, beginning with the more simple and gradually increasing in difficulty as the power and flexibility of the muscles is developed. When sufficient grace and ease has been attained, drill movements in unison are introduced, bringing the spirit of play into the work with the attendant benefits derived from the healthy interest aroused. All movements are performed to the accompaniment of music, the inspiration of which insures interest and spontaneity.

Four hours per week are devoted to these exercises.

Department of Professional Instruction.

A normal school is neither a high school nor a college. To a certain extent it partakes of the nature of both; but in its ultimate aim it differs from each, and this fact gives a distinctive character to the methods of instruction employed. The end in the high school is the subject and its value to the student; in the college, the point of view is the same, only the scope is more enlarged; in the normal school it is the value of the subject as a basis for its presentation to others. If the normal school could exclude all students who have not completed a college or at least a high school course, then this "art of presentation" would be the sole aim of its instruction. But as this is not the condition, the

"basis" must be supplied. To a certain extent the giving of this academic instruction is an advantage, for in the selection of the topics under each subject a choice can be made to fall upon those that will more certainly be of value to the coming teacher.

When, however, a sufficient amount of this academic knowledge has been supplied, the attention is turned to the professional side of the school. The basis is psychology, upon which a superstructure of child study, methodology, history and science of education, and practice teaching is reared. The training school forms a very important feature in the professional course; but it is expected that the instruction therein given will be in harmony with the methods employed by the respective members of the normal faculty. To accomplish this joint meetings of the faculty and of the senior class will be held, at each of which some member of the faculty will present methods in his or her specialty.

PSYCHOLOGY.

The instruction in psychology may be classified as elementary and advanced. The elementary course consists of one hundred lessons, given in the first semester of the middle year. It precedes pedagogy and follows physiology, where special attention is given to the study of the nervous mechanism. It deals with the elements of psychology, comprising investigation of the general nature of the mind, the basis of psychic life, stages of knowing, characteristics of feeling, conditions and modes of consciousness, and elements of volition. The aim in the elementary course is to aid the student in developing the power and fixing the habit of observing, and of analyzing and interpreting the physical phenomena attendant upon the mental activities and states. This study is pursued, as far as practicable, inductively. The observation of the manifestation of mental powers and conditions is directed both to the child and to the ego.

The work of the advanced course is a more comprehensive investigation and discussion of the whole subject, and is intended to give the student such a knowledge of the states, powers and activities of the mind, their inter-relations and the laws governing their growth as will enable him to pursue a rational course of procedure in his professional work.

Topics for Study.—The topics for study are the nervous mechanism, consciousness and attention, presentation, the cultivation of perception; representation, the cultivation of the memory, the imagination and its culture; thought and thought culture; feeling and emotion, the cultivation of the emotions; the will and the cultivation of the will.

LOGIC.

The study of logic is based on psychology. The point of departure is found in the chapter on thought. It deals with the concept, the judgment, the syllogism, analysis and synthesis, and induction and deduction. From the historical side Socrates, Aristotle, and Bacon receive special attention.

PEDAGOGY.

The course in pedagogy follows that of psychology upon which it is based. It occupies twenty weeks, five recitations per week. Its purpose is to note the necessary conditions underlying the acquisition of knowledge. The discussion of the individual notion serves as the starting point, passing thence to the consideration of the general notion and how the latter differs from the former. The student is led to realize that the acquisition of general notions is the goal of instruction. The study of the "formal steps" follows next. The practical illustrations of these are found in the observation lessons of the lower grades of the public schools of Tempe, which we have been so kindly permitted to visit. With the above as a foundation the study of methods in reading, spelling, object lessons, geography, history, grammar, language, arithmetic, and such other studies as are found in the curriculum of the public schools is taken up for the remainder of the semester. With this as a foundation the student takes up his work in the training department.

HISTORY AND PHILOSOPHY OF EDUCATION.

In a general sense the history of education is the story of the growth and development of the human race; but this course is restricted to a brief sketch of the ancient systems of education, those of India, Egypt, Persia, Greece, Rome and the Jews; the lives of Socrates, Plato, Aristotle, Cicero, Seneca, Quintilian, and Jesus; the schools of mediæval and modern times; a study of the lives of noted educational reformers, as Comenius, Pestalozzi, Herbart, and Froebel, and the principles advocated by them; and a comparison of the school systems of Germany, France, England and America.

ETHICS.

In its history the subject of ethics is closely related to the history of education. The purposes that underlie the system of education of a country will give us a clue to the principles upon which its people base their life and conduct. For this reaeon the

first part of the work is an historical study in connection with the history of pedagogy. Toward the close the work becomes more practical. Some modern text is selected for this work. The present year the class used Kidd's "Social Evolution."

METHODOLOGY.

The course in methodology is a continuation of the course in pedagogy, its object being to carry out in finer detail the lines of study opened up in that course, and to give such study as practical a turn as possible by relating it closely to the work of the training school. It furnishes to the training teacher an opportunity for giving her assistants instruction concerning their work in teaching, and serves as a connecting link between the professional side of the work of the normal school proper, and the training school.

Methodology consists, first, of a body of principles drawn from psychology that are applicable to all teaching; and second, of special plans and devices for the presentatian of particular branches of knowledge. Since the academic work in the normal is so conducted as to associate with the subject matter of the several studies the proper method to be employed in teaching it, it is assumed in this course that in addition to having acquired an adequate knowledge of the subject matter of the various branches entering into the curriculum, each student has gained a fair knowledge of the special method of each branch. Hence the general aim of the course in methodology is to organize, enlarge, and unify the knowledge of method already possessed by the student.

The course will be conducted by the training teacher with the co-operative assistance of the entire normal faculty. Each special teacher is expected to map out in a series of lectures and type lessons the scope of his particular branch of study, and to indicate in a general way the best method to be employed in presenting it in the different grades. The training teacher will have charge of that part of the work having to do with general principles of teaching, and with the rational features involved in a proper correlation of studies. Particular attention will be directed to the principles underlying teaching in primary grades, where the child himself, rather than the subject matter, is of chief interest.

The course occupies forty weeks, five periods per week, and is about equally divided among the five branches: General principles; mathematics; history, including reading, spelling, grammar, and allied subjects; science, including science and nature study considered in the broadest sense; and expression, including writing, painting, etc.

The course is conducted on the seminary plan, each student being required to make a general study of all topics considered,

ASSEMBLY HALL, TRAINING SCHOOL. TRAINING SCHOOL BUILDING. INTRODUCTORY CLASS.

and an exhaustive study (as far as conditions permit), of one subject upon which he must prepare a thesis to be presented to the class for discussion. The normal library is well supplied with materials for this work. Each subject is considered philosophically, to determine why it has a place in the course of study; scientifically, to show the systematic arrangement of the principles involved, and their relation to other subjects; and pedagogically, in order to learn its relation to the pupil, what parts are to be used and emphasized in teaching, and the best method of using them.

A special feature of the course has been a weekly recitation devoted to a searching criticism of a model lesson conducted by a senior student with her regular class in the training school, or by the training teacher, in the presence of the entire senior class, two or three days in advance of the criticism lesson. This work is based upon the plan followed by Rein in his model school at Jena. The order of discussion is:

1—A description of the recitation.

2—Criticism of:

(a) *Subject matter*, its fitness, its relation to other subjects, and its relation to the preceding and following recitations in the same subject.

(b) *Method:* Aim, movement, leading questions, tests and summaries.

(c) Results.

(d) Government.

(e) Manner.

Another feature of this course consists of regular training school faculty meetings, which are held as often as is deemed necessary.

The Training Department.

In the professional work heretofore outlined attention has been directed almost exclusively to the theoretical side. It is recognized, however, that to enable one to arrive at a thorough understanding of educational theories, an opportunity for observing their practical application, and for assisting in it, is essential. To supply this opportunity a training school is provided, of forty-eight pupils, divided into four classes of twelve pupils each, and limited to the first four grades of the territorial common school course. This school occupies a building adjoining the normal, is under the control of the normal school board, is equipped with all the aids employed in the best schools, and is under the charge of a skilled

instructor, called a training teacher, who is held responsible for the educational progress of the pupils, who are instructed chiefly by the senior students, whose work she directs. The training teacher also has charge of the course in methodology, and renders such other services as the interests of this department may demand.

The Normal Training School, so far as environment is concerned, leaves little to be desired. The building is commodious and airy, and has a homelike appearance; while the grounds, which are but an extension of the normal campus, are large and attractively laid out, and furnish ample room for recreative sports and for a school garden.

The territorial course of study naturally forms the basis of the course followed in the training school, since the latter is in effect but an adjunct of the Tempe public school, and since the normal graduates must follow this course of study when they come to teach in the public schools of Arizona. However, while a training school must give the student teachers experience in teaching those subjects that are required by law to be taught in the public schools, it must, in addition, if it fulfill its true function, point the way to educational advance. It must be all that a public school is; but it must also be (in so far as environment and circumstances make it possible), a model school for illustrating to the student teachers a practical application of the most advanced educational theories and practices, providing a daily illustration of the best kind of school work done anywhere in this country.

The territorial course of study is so planned as to be admirably adapted to this end, since it leaves, throughout, ample opportunity for the introduction of new work along the lines laid down, and for giving full play to the individuality of the teacher in the selection of methods. An outline of the course of study followed in the training school during the past year is given on another page.

The length of the school year for the training school is eight months, the number of pupils is limited to twelve in each grade, and the tuition is free. Application for admission to the training school must be made in the month of September, and each application will be acted upon in the order in which it is received. The same method will be observed in filling any vacancies that may occur during the year. The places of all pupils that are not present at the opening of the training school year will be filled by those next upon the list.

The amount of time to be devoted by each student in the training school is equivalent to five periods per week for thirty-two weeks.

COURSE OF STUDY FOR TRAINING SCHOOL.

Subjects.	FIRST GRADE.			SECOND GRADE.			THIRD GRADE.			FOURTH GRADE.		
	No. Recitations per week.	Length of Recitations.	Time given to Study.	No. Recitations per week.	Length of Recitations.	Time given to Study.	No. Recitations per week.	Length of Recitations.	Time given to Study.	No. Recitations per week.	Length of Recitations.	Time given to Study.
Arithmetic	10	15	...°	10	20 & 10	15	5	20	20	5	20	20
Reading	15*	20	...	10	20	15	5	25	20	5	25	20
Spelling	Part of	Rea	d'g	5	15	15	5	15	20	5	15	20
Language	10†	20 & 10	...	10*	20	...	10	20	...	10	20	...
Writing	10*	20	...	...	20	10	5	20	...	5	20	...
Drawing	5†	...	...	5*	20	...	5	25	...	5	25	...
Manual Training	5	20	...	5	20	...						
Science	5	15	...	5	20	...	5	25	...	5	25	...
Music	5	20	...	5	20	...	5	15	...	5	15	...
History	...	...	...	...	...	...	5	25	...	5	25	...
Geography	...	...	...	...	...	..						
General Exercises	5	20	...	5	20	...	5	20	...	5	20	...

* One lesson each day combined.

† One lesson each day combined.

° Study only during part of recitation period under direction of teacher.

NOTE:

1st Grade spends 4 hours in school daily.

2d Grade spends { 4 hours in school daily, 1st term. / 5 hours in school daily, 2d term.

3d and 4th Grade spends 6 hours in school daily.

Register for 1899-1900.

CLASS OF 1901.

Carter, Noble..... Howard, Kan.
Davis, Alma Morgan..... Tempe
Fultz, Alice A.....
Green, Hattie M..... Phoenix
Greenleaf, Edna Lucie..... Yuma
Godwin, Dean Ely..... Tempe
Hill, Minnie A..... Phoenix
Hedgpeth, Elizabeth India..... Phoenix
Hottinger, Josephine K..... Santa Rosa, Cal.
Martin, Perla E..... Tempe
Merriam, Eleanor Atlee..... Phoenix
McNulty, Mary Emma..... Phoenix
Stewart, Helen Marion..... Tempe
Schwarz, Elizabeth..... Mesa
Sirrine, Serretta Anne..... Mesa
Stauffer, Charles Albert..... Glendale
Wilbur, Ethel M..... Mesa
Webb, L. Grace..... Cline

UNDERGRADUATE STUDENTS.

Aiton, James..... Tempe
Appleby, Alice B.....Tempe
Anderson, Okla.....Gila Bend
Allison, Winnie E.....Globe
Armitage, Fannie G.....Fairbanks
Bell, Roy H.....Wickenburg
Brown, Earl..... Tempe
Brady, Lulu..... Mesa
Brady, Rachel..... Mesa
Buck, Roy..... Tempe
Barnes, Frank.....Norris City, Ill.
Cosner, Lizzie..... Tempe
Corbell, Olivet..... Tempe
Cummings, Lucy..... Tempe
Curnow, Alice..... Mesa
Cartledge, Anna V.....Tempe
Culver, Grace..... Prescott
Curnow, Murray..... Mesa
Corbell, Ernest C.....Tempe
Coughran, Wiley..... Tempe
Cartwright, Royden..... Mesa
Davis, Frank..... Scottsdale
Drew, Arthur W.....Tempe
Duncan, Nellie..... Mesa
Dawdle, Mollie..... Tempe
Drachman, Esther M.....Phoenix
Etter, Delphia..... Phoenix
Ford, Florence ..... Prescott
Frazee, Sadie E.....Tempe
Godwin, Grace M.....Tempe
Gibson, Leona..... Lehi
Griffin, Frank..... Tempe
Hough, Frank..... Tempe
Haulot, Leona..... Phoenix
Hayden, Mary..... Tempe
Haigler, Charles A.....Tempe
Hicks, Lelia..... Globe
Hughes, Thomas J.....Tempe
Harmon, Victoria F.....Tempe
Hannah, Herbert..... Phoenix
Hough, Elizabeth..... Tempe
Hackett, Edna..... Tempe
Irvine, Janie I.....Phoenix
Irvine, Deborah. ..... Phoenix
Jones, Daniel D. .....Lehi
Jones, Alma..... Lehi
Jenkins, Sara..... Prescott
Jones, Orren C.....Lehi
Johnson, Farland..... Mesa
King, Emma L..... .....Tempe
Kemper, Jennie..... Tempe
Listebarger, Ina L.....Tempe
Laney, Lynn M.....Mesa
Laney, Joseph C.....Tempe
Lindsey, John M.....Oakdale
Millet, Mary D.....Tempe
Mullen, Mary F.....Tempe
Mullen, Lottie..... Tempe
Miller, Sallie..... Tempe
McCarthy, Jennie..... Prescott

Munds, Getha..... Tempe
Munds, Jennie..... Tempe
Matthews, Anna..... Tempe
Nichols, Guy W.....Tempe
Nichols, Grace..... Tempe
Odell, Otha C.....Tempe
Priest, John..... Tempe
Priest, Mariana..... Tempe
Pomeroy, Ina..... Mesa
Penn, Ida..... ..... Tempe
Penn, Della..... Tempe
Pierce, Abbie.....Walnut Grove
Pulsifer, Elma..... Providence
Paddock, Clarence.....David, Iowa
Ross, Stella..... Mesa
Robbins, Pansy..... Tempe
Rush, Oscar.....Walnut Grove
Reed, Gertrude..... Tempe
Redden, James E.....Tempe
Richards, Robert O.....Tempe
Schwarz, Margaretha..... Lehi
Stone, Neva..... Tempe
Stewart, Edith..... Tempe
Smith, Lena M.....Pink Hill, Mo.
Snyder, Mary..... Bumble Bee
Standage, Orpha..... Mesa
Standage, Orren L.....Mesa
Stewart, Merton..... Tempe
Sanders, Lafayette..... Lehi
Smith, Warren F... Pink Hill, Mo.
Shute, Walter G.....Livingstone
Shull, Charles..... Prescott
Schoohusen, Emma..... Tempe
Spain, Lydia..... Buckeye
Steinberger, Honor E..... Palomas
Saylor, Grace..... Tempe
Thomas, Marion..... Tempe
Telford, John..... Mesa
Trussler, Harry R.....Tempe
Underhill, Margaret..... Scottsdale
Wilbur, Everett R.....Mesa
Woolf, James O.....Tempe
Woolf, Robert A.....Tempe
Woolf, William H.....Tempe
Whitaker, Robert..... Tempe
Westover, Jessie..... Tempe
Walker, Iva M.....Tempe
Wilson, Eugene..... Phoenix
Wilson, Maude..... Tempe
Willard, Olga.....Camp Verde
Wallace, James Q.....Mesa
Walker, Levi..... Tempe
Wagnon, Harry..... Tempe

PUPILS OF TRAINING DEPARTMENT.

Bolton, Vivian.
Bracomonte, Aurelia.
Celaya, Jose.
Celaya, Manuel.
Conser, Otto.
Conser, Reah.
Corbell, Homer.
Corbell, Paul.
Estrada, Leonedes.
Estrada, Pedro.
Estrada, Ramon.
Gonzales, Manuel.
Goodwin, Julius.
Halbert, Jackson.
Halbert, Nina.
Hendrix, Bertrande.
Juhl, Alice.
Manley, Mildred.
Messer, Lolita.
Messer, Walter.
Miller Emma.
Miller, Gussie.
Miller, Rosa.
Newton, Harry.
Oviedo, Marguerite.
Page, Stanley.
Parker, Franklin.
Reed, Annie.
Reed, Oscar.
Richards, Roy.
Robbins, Irene.
Robinson, Neil.
Schmidt, Irma.
Schurman, John G.
Shew, Edna.
Shew, Nelson.
Shrout, Archie.
Shrout, Hurst.
Shrout, Reid.
Stewart, Grace.
Stone, Charley.
Strong, Bessie.
Strong, Floyd.
Westover, Charley.
Wolf, Agnes.
Wolf, Carl.
Wolf, Marie.

Alumni Register.

Class of 1887.

NAME.	TIME DEVOTED TO TEACHING.	P. O. ADDRESS.
Etta Broomell (Mrs. J. Webster Johnson)	Four years	Tempe
Georgia A, Holmesley (Student, Stanford University)	Nine years	Tempe
Reese M. Ling (District Attorney, Yavapai County)	Two years	Prescott
Major James H. McClintock	Five years	Phoenix
Gertrude Pomeroy*	Five years	

Class of 1888.

Kate Cummings (Mrs. Fisher Bailey)	Five years	Tempe
Martha Sears*	Five years	
Henry Q. Robertson	Eleven years	Globe

Class of 1890.

Nanna Brown (Mrs. John Knight)	Three years	Tempe
Lena Coughran (Mrs. J. M. Sears)	One year	Tempe

Class of 1891.

Lee Gray, LL. B. (Yale 1893) (Attorney)		Phoenix
Josephine Frankenberg (Student, Cook County Hospital)	Five years	Chicago, Ill.

Class of 1892.

Lillian J. McAllister (Mrs. L. J. King)		Los Angeles, Cal.
Victoria B. Shaw (Mrs. Geo. K. Smith)	One term	Tucson

Class of 1893.

Manie Anderson	Four years	Gila Bend
Agnes Halbert*		
W. I. Melton	Five years	Phoenix
Lidia Rembert	One year	Los Angeles, Cal.
Mary Wingar	Seven years	Tempe
Chas. C. Woolf, LL. B. (Univ. of Colo.) (Attorney)		Tempe

Class of 1894.

Myrtle Aplin (Physician at Napa Insane Asylum)	One year	East Highlands, Cal.
Joseph T. Birchett	One year	Tempe
Addine Bury	Six years	Phoenix
Nettie Clay (Mrs. Ashby Hawes)	One year	Tempe
Agnes Dobbie (Mrs. J. D. Loper)	Six years	Mesa
Allie Gray	Six years	Phoenix
Leroy F. Hill (Secretary Tempe Canal Co.)		Tempe
Mary E. McNeill	Six years	Tempe
John Metz	Six years	Mesa
Blanche Newell	Six years	Mesa
Rosina Pomeroy	Six years	Mesa
Ella Saunders (Mrs. Louis Cordon)	Two years	Shumway
Anna R. Stewart	Five years	Tempe
Ida W. Woolf (Mrs. A. J. O'Connor)	Five years	Nogales

* Deceased.

Class of 1895.

NAME.	TIME DEVOTED TO TEACHING.	P. O. ADDRESS.
Miriam Anderson (Mrs. M. A. Davenport)	One year	Los Angeles, Cal.
John R. Birchett	Two years	Tempe
John J. Carroll		Tempe
Carrie Culver	Four years	Harrisburg
Lottie Gibson	Two years	Tempe
Allie Holmesley	Five years	Tempe
J. Wallace Morse	Two years	Tempe
Chas. P. Mullen		Tempe
Roscoe Walsworth (Student, Harvard University)		Tempe
Maude J. Welcome	Four years	Tucson
Bertha Wilson	Four years	Tempe
E. Stanley Windes (Mrs. Dr. Metgar)	Six years	Prescott

Class of 1896.

J. Lawrence Abell	One year	Benson
Nellie E. Culver	Four years	Harrisburg
Don J. Frankenberg	One year	Columbus, O.
Nott E. Guild		Tucson
Florence G. Hanna (Mrs. J. B. Flummerfeldt)	Four years	Tempe
Carl T. Hayden		Tempe
Jane M. Hedgpeth	Two years	Phoenix
Lewis G. Hedgpeth	One year	Phoenix
Georgia A. Hendrix (Mrs. L. C. Austin)	Three years	Tempe
Amina W. McNaughton (A. B. 1898.)	One year	San Jose, Cal.
Deborah I. Morris (Mrs. Doane Merrill)	Two years	Jerome
Julia R. Nichols	Two years	Tempe
Bertha M. White	Four years	Tempe

Class of 1897.

May A. Austin (Mrs. William M. Goodwin)	Two years	Tempe
Julius G. Hansen		Los Angeles, Cal.
Adele Hauxhurst	Two years	Phoenix
May C. Huffer	Two years	Tonto
Jane P. Martin (Mrs. Verner A. Vanderhoof)	Two years	Tempe
Ana M. Miller	Three years	Tempe
Clara M. Miller	Three years	Tempe
Flora L. Mills	One year	Phoenix
J. Oscar Mullen	One year	Tempe
Ada M. Peyton (Mrs. William Dodenhoff)	One year	Phoenix
Mary C. Robinson (Mrs. W. J. Bowen)	Two years	Mesa
Lucy M. Schwarz	Three years	Lehi
Addie Sirrine	Three years	Mesa
Verner A. Vanderhoff	Three years	Tempe
Walter S. Wilson (Student, Oxford, Ga., Univ.)		Phoenix
Alice B. Windes	Three years	Cottonwood

Class of 1898.

Edith R. Abell		Benson
Mary C. Bosbyshell	One year	Los Angeles, Cal.
Flora N. Cohn	One year	Phoenix
Elizabeth W. England	Two years	Tempe
Louie V. Gage	Three years	Tempe
Una B. Hanna	Three years	Tempe
J. Wesley Hill	Two years	Washington
Olive J. Maxwell	Two years	Phoenix
Florence A. McKee	One year	Santa Ana, Cal.
Julia E. Melton	Two years	Santa Barbara, Cal.
Mary R. Moore	One year	Willcox

NAME.	TIME DEVOTED TO TEACHING.	P. O ADDRESS.
Ethel M. Orme	Four years	Phoenix
Charlotte E. Perry (Mrs. Homer Redden)		Phoenix
William R. Price		Phoenix
Clyde A. Stewart	One year	Mesa
Ida Warren Swiggett	Two years	Phoenix
Walter H. Wilbur		Tempe

Class of 1899.

Garnet Allison	Two years	Mesa
Bessie Frances Archbald	Two years	Tempe
Eva L. Bowyer	Two years	Phoenix
Lutie Marion Carlyle	Two years	Westminster, Cal.
Nellie E. Clark	Two years	Mesa
Robert O. Duncan		Phoenix
Inez B. Fisher	Two years	Tempe
Jessica Frazier	Two years	Phoenix
Martha Garnett	Two years	Phoenix
Garfield A. Goodwin		Tempe
Lena Rivers Hartsfield	Two years	Tempe
Ella Leota Hauzhurst	Two years	Phoenix
Harry G. Hendrix	Two years	Tempe
Benjamin E. Hicks		Globe
Margaret Beatrice Hughs	Two years	Fuller, Kansas
Frank R. Kellner		Phoenix
D. Maude Lincoln	Two years	Jerome
Alice A. Morse	Two years	Tempe
Lillian M. Murray (Mrs. Andrews)		Phoenix
Grace Newell (Mrs. Guy Collins)		Jerome
Edna A. Ozanne	Two years	Tempe
L. Clay Henshaw	Two years	Phoenix
Zebulon Pearce	Two years	Mesa
Minnie A. Perry	Two years	Cordes
Madge P. Richmond	Two years	Phoenix
Gilbert States	Two years	Delta, Colo.
Ida W. Temple (Mrs. Wm. Swan)	Two years	Bowie
Ruby M. Tucker	Two years	Tempe
Lillian A. Vaughn	Two years	Benson
Emma Peyton	Two years	Florence
Mary Malvina Wallace	Two years	Mesa
Veronica White	Two years	Tempe
Lulu Belle Wingar	Two years	Tempe

Owing to the action of the Board in extending the course of study no class was graduated in 1900.

Class of 1901.

Noble Carter	Howard, Kan.
Alma Morgan Davis	Tempe
Alice A. Fultz	
Hattie M. Green	Phoenix
Edna Lucie Greenleaf	Yuma
Dean Ely Godwin	Tempe
Minnie A. Hill	Phoenix
Elizabeth India Hedgpeth	Phoenix
Josephine K. Hottinger	Santa Rosa, Cal.
Perla E. Martin	Tempe
Atlee Eleanor Merriam	Phoenix
Mary Emma McNulty	Phoenix
Helen Marion Stewart	Tempe
Elizabeth Schwarz	Mesa
Serretta Anne Sirrine	Mesa
Charles Albert Stauffer	Glendale
Ethel M. Wilbur	Mesa
L. Grace Webb	Cline

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